



## **NASA SEWP**

NASA SEWP is one of the data centers on NASA's Greenbelt, MD facility and provides the latest in Information Technology (IT) products for all Federal Agencies. The data center was running out of UPS power and cooling when GMS was tasked with providing and installing additional capacity in order to restore reliability and ensure future growth. GMS installed a new APC 80KW InfraStruXure PDU system including a circuit breaker (to protect the PDU from over-current), conduit box and cabling, service bypass panel and battery cabinet. GMS also brought in supplemental cooling with an APC SCU In-Row unit. Once the units were in place, GMS made all of the electrical, battery and cable connections before providing start up services with APC. GMS designed, built and commissioned this system.

## **METROPOLITAN REGIONAL INFORMATION SYSTEMS (MRIS)**

MRIS® is an acronym for **Metropolitan Regional Information Systems, Inc.** MRIS is the largest MLS in the nation and is the leading online real estate information service for about 50,000 real estate professionals in the Mid-Atlantic region, including the vast majority of Maryland, Northern Virginia and Washington, DC as well as parts of Pennsylvania and West Virginia. GMS provided for the mission critical mechanical and electrical infrastructure needs within the new data center located in the new MRIS facility. GMS worked with many partners in this project to help to get the customer from concept to constant uptime. GMS was instrumental in designing a complete solution from selecting products and projecting future needs, through to installation and commissioning for the data center infrastructure. GMS performed our services simultaneously while the customer was separately building the new site. The solution included installation of numerous APC In-Row cooling units along with the associated piping racks, conduit, etc., and one (1) APC UPS system.

## **BRTRC**

BRTRC provides focused professional services to Federal Government agencies around the globe. GMS was tasked with providing a new cooling solution for BRTRC's new data center. GMS designed, built and commissioned the new mission critical mechanical and electrical infrastructure for BRTRC's new data center in Fairfax VA, which holds data for numerous federal government agencies. GMS employed the APC In-Row cooling line as the cooling solution and an APC UPS along with all associated mechanical, electrical and start-up operations.

### **GMS Overview**

Headquartered in Annapolis, MD, GMS is a mission-critical mechanical, HVAC, electrical and plumbing service company serving customers nationwide.

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### **Memberships**

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### **Solutions and Services**

- Central plant solutions
- HVAC solutions
- Electrical solutions
- Plumbing solutions
- Data center solutions
- "R" Stamp welding
- Medical gases

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### **More Information**

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### FORT MEADE

Fort Meade in Maryland has the fourth largest workforce of Army installations in the continental US with approximately 40,000 military, civilian and contractor personnel. GMS was chosen to install APC In-Row cooling units into a secure and top secret data center for the U.S. Army, TAO (Technology Applications Office). TAO provides the complete spectrum of life-cycle Communications-Electronics and Information Management services and support to Army-approved special programs.

For this effort, GMS worked directly with the Army in designing and building the mission critical mechanical and electrical infrastructure required for the IT needs of a special group at the base. GMS, selected for its knowledge and past performance within these environments, chose the APC In-Row cooling solution, APC UPS and PDU for this project. GMS implemented a chilled water solution for this customer and integrated the solution onto the new generator, allowing 24-7-365 true up time.

### MITRE CORPORATION

The MITRE Corporation is a not-for-profit organization chartered to work in the public interest. MITRE manages four Federally Funded Research and Development Centers (FFRDCs): one for the Department of Defense, one for the Federal Aviation Administration, one for the Internal Revenue Service and U.S. Department of Veterans Affairs and one for the Department of Homeland Security. Mitre Corporation was due to expand the size of its data center, but the existing 5 Ton air-cooled split system wouldn't be able to handle the additional heat generated or allow for any future growth. GMS designed and installed a new cooling solution using two (2) APC in-row RD units each capable of removing 10.5 KW of heat. Provisions were made for the installation of a third unit to accommodate future cooling requirements. GMS also installed a new APC 40 KW UPS system along with all associated mechanical and electrical requirements.

### CONSORTIUM

GMS was asked to design and install a data center cooling and power solution for Consortium Health Plans, a Company that provides market intelligence, market relationship information and leading-edge sales tools for Blue Cross Blue Shield. GMS designed the solution around an APC ACRP501 in-row chilled water unit and a 15 Ton air-cooled chiller package. The new air-conditioning unit would deliver 40 KW (or 12 tons) of cooling with 27 GPM of 45 degree F water. GMS also provided the electrical service to the new APC PDU and UPS.

### CREATIVE ASSOCIATES INTERNATIONAL

Creative Associates provides accelerated learning programs across the world, improving communities and providing access to schools and education. GMS was tasked with providing a cooling solution for Creative Associates new data center in Falls Church VA, which would ensure reliability and allow the flexibility to grow. GMS installed new APC CRAC's along with all associated mechanical and electrical piping.

### METTLER TOLEDO

Mettler Toledo provides a comprehensive range of laboratory products on a global level. GMS was asked to provide all mechanical and electrical services to install an APC UPS system in the data center which supports the Mettler Toledo organization.

### METRON AVIATION

Metron Aviation is a leading provider of advanced Air Traffic Management (ATM) products and services for the global aviation industry. Based out of Dulles, VA, Metron needed to increase the size of their data center and therefore required a more reliable and extensive cooling solution to handle the extra heat that would be generated by the additional hardware. GMS installed two (2) APC ACRP100 split system cooling units and one (1) APC 40KW UPS system including all associated electrical and mechanical piping.

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### General Dynamics Information Technology

#### Data Center Solution

GDIT is a systems integrator that provides IT systems engineering, professional services and simulation and training to customers in the defense, intelligence, homeland security, federal civilian government and commercial sectors.

GMS performed the mechanical and electrical design, installation and commissioning of a new power and cooling infrastructure solution within GDIT's data center room located in Fairfax, VA. The cooling system consisted of an air-cooled chiller; APC In-Row cooling infrastructure; chilled water loops that were sized for growth; chilled water buffer tank; redundant parallel electrical feeds; transfer switch; initial 80kw UPS; separate wiring closet ventilation unit; and a separate solution which is now back up for the primary cooling solution consisting of two each up-flow close-control air-conditioning units with associated dry cooler, dual pump package and electrical upgrades.

This mission critical infrastructure solution was integrated with no major downtime to the mission of the customer, despite the data center being located in the middle of an 8 storey building, necessitating installing of major piping and electrical circuits.

GMS selected the APC in-row cooling units for this project which provided GDIT with added redundancy; a more flexible cooling design for future growth; and a more energy efficient solution which translates into large savings.

### Congressional Federal Credit Union (CFCU) - Headquarters Building

#### Data Center Solution

The CFCU is a financial institution that serves employees of the House as well as over 100 other corporate partners and associations.

GMS was responsible for the design, installation and commissioning of the mechanical, plumbing and electrical mission critical infrastructure for CFCU Headquarters and subsequently their Disaster Recovery site.

The project required the installation of a new back-up generator, to ensure continuous power protection; automatic transfer switch (ATS) to provide safe switching from utility to emergency generator power; new computer room air-conditioner (CRAC) units; UPS and fire suppression.

Once the installation was complete, GMS was responsible for the load bank testing and commissioning of the final solution to ensure everything was working correctly and installed to code.

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## Calvert Memorial Hospital

### Data Center Solution

Calvert Memorial Hospital is the cornerstone of Calvert Health System and is considered the region's premier center for quality health care.

GMS was responsible for the design and installation of an alternate cooling solution and all supporting electrical work for an existing data center. The new solution, which was approximately 40% less expensive than the original design, utilized chilled water and APC in-row cooling units. As well as being more cost effective to install, the new system offered 33% more cooling capacity, the option for future scalability and continues to provide Calvert Memorial with significant energy savings year on year.

## Solers – Fairfax VA

### Data Center Solution

Solers is a client-focused business staffed primarily by engineers and scientists. They provide services in the areas of distributed information management and communication systems, technical consulting & engineering, sensors and sensor system and software engineering as it applies to aviation safety and navigation systems.

GMS was tasked with installing a new APC in-row cooling and air solution plus all supporting electrical within the company data center.

This project involved sourcing and installing new electrical panels to accommodate the power equipment, which included an 80 KW UPS/PDU unit, and running a new electrical circuit to the outside condenser. GMS sourced engineered drawings for the installation of the six in-row cooling units from APC and was also responsible for the framing, piping and testing of the solution once the units were situated.

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